

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 12-17 are presently active in this case, Claims 1-11 having been canceled without prejudice or disclaimer and Claims 12-17 having been added by way of the present Amendment. Care has been taken such that no new matter has been entered, as the new claims are fully supported by the original disclosure including the figures and description.

In the outstanding Official Action, Claims 1-8, 10, and 11 were rejected under 35 U.S.C. 102(b) as being anticipated by Yabe et al. (U.S. Patent No. 5,863,286). Claim 9 was rejected under 35 U.S.C. 103(a) as being unpatentable over Yabe et al. in view of Akui et al. (U.S. Patent No. 4,715,360). For the reasons discussed below, the Applicant submits that the Yabe et al. reference does not preclude patentability of the claims of the present application.

A claim is anticipated only if each and every element as set forth in the claims is found, either expressly or inherently described, in a single prior art reference. As will be demonstrated below, the Yabe et al. reference clearly does not meet each and every limitation of new independent Claim 12.

Claim 12 of the present application recites a valved plug including, among other features, a main body portion internally formed with a constricted passage, and a nesting piece adapted to be detachably coupled with the main body portion and having a normally closed slit valve in axial alignment with the constricted passage. The constricted passage is formed in a radial partition wall located at an intermediate portion between outer and inner ends of the main body portion. An annular inward interlocking projection is provided at an

outer end of the main body portion to be coupled with the nesting piece. The interlocking projection is axially spaced from the radial partition wall by an annular groove formed on an inner periphery of the main body portion. The slit valve is provided in a circular fitting body portion of the nesting piece to be fitted in the main body portion. An annular interlocking groove is formed around an outer periphery of the fitting body portion of the nesting piece. The annular interlocking projection on the main body portion has a thickness greater than an axial width of the annular interlocking groove on the fitting body portion of the nesting piece, and an inside diameter smaller than a root diameter of the annular interlocking groove on the fitting body portion, to hold the annular interlocking projection in a compressed state by a bottom surface and riser wall portions of the annular interlocking groove when the nesting piece is coupled with the main body. And an annular interlocking flange is provided at an inner end of the fitting body portion in such a way as to leave a free space between the radial partition wall on the main body portion and the fitting body portion of the nesting piece to permit easy inward deformation of the slit valve toward the constricted passage when opened by insertion of an instrument. The Applicant respectfully submits that the Yabe et al. reference does not disclose all of the above limitations.

The Yabe et al. reference describes a forceps plug 61 that is provided with a first plug body 63 and a second plug body 64. A central hole 63c, which corresponds to a constricted passage, is bored on the part of the first plug body 63, and a slit 64d is provided on the part of the second plug body 64. Further, a ring shaped recess 63d is formed on and around the inner periphery of the first plug body 63, and this ring shaped recess 63d is resiliently engaged with a flange 64a which is provided at a corresponding position on the part of the second plug

body 64.

Furthermore, the Yabe et al. reference describes a configuration in which the slit 64b of the second plug body 64 is overlapped on the central hole 63c on the part of the first plug member 63. In fact, when the second plug body 64 is provided within the first plug member 63, then the slit 64b abuts directly against the central hole 63c. Thus, in this configuration, at the time of insertion of forceps or other instrument, it becomes necessary to push apart the slit 64d against the radial partition wall of the first plug member 63, that is to say, against an extremely large resistance.

In contrast, Claim 12 of the present application recites an annular interlocking flange that is provided at an inner end of the fitting body portion in such a way as to leave a *free space* between the radial partition wall on the main body portion and the fitting body portion of the nesting piece to permit easy inward deformation of the slit valve toward the constricted passage when opened by insertion of an instrument. Such a free space is not disclosed in the Yabe et al. reference, which depicts the lower surface of the second plug body 64 and the slit 64b abutting directly against the first plug member 63 and the central hole 63c. Thus, the Applicant submits that the Yabe et al. reference does not anticipate Claim 12.

The present invention provides a nesting piece that can be fitted stably on a main body of the plug by engagement of an annular interlocking groove on the nesting piece with an annular interlocking projection on the part of the main body portion of the plug, and a slit valve on the nesting piece that is allowed to deform easily inward when opened by insertion of forceps or other instrument. By way of illustration and not limitation, the present application describes an embodiment in which as the nesting piece is fitted on the main body

portion of the plug, the annular interlocking projection on the main body portion is pressed against the bottom of the annular interlocking groove of the valved nesting piece to keep the latter stably in a tightly connected state. The valved nesting piece can be retained in the tightly connected state even when an external force is exerted thereon, for example, by insertion or extraction of forceps or other instrument. When an instrument is pushed into the plug, a riser wall under the annular interlocking groove of the nesting piece is held in restricted state (restricted of free movements) by pressed engagement with the lower side of the annular projection on the main body portion of the plug. On the other hand, when an instrument is pulled out of the plug, a riser wall on the upper side of the annular groove is held in a restricted state by pressed engagement with the upper side of the annular projection on the main body portion.

In this manner, the nesting piece is fixed on the main body portion of the plug solely by pressed engagement of the annular projection and groove, so that there is no necessity for abutting other parts of the nesting piece against the main body portion of the plug. Accordingly, a free space can be provided between a slit valve portion of the fitted nesting piece and a radial partition wall in the main body portion, allowing slit wall portions to be deformed toward the free space when the slit valve is opened by insertion of an instrument. Thus, the slit valve can be opened and closed easily in a facilitated manner. Of course, as long as no instrument is inserted, the slit valve on the nesting piece is retained securely in a closed state because the inner end of the annular interlocking projection on the main body portion is tightly pressed against the bottom of the annular interlocking groove on the nesting piece.

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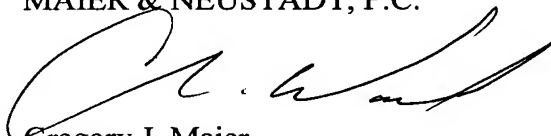
In the case of the device described in the Yabe et al. reference, the forceps plug has no space which permits deformation of the slit valve at the time of insertion of an instrument, and clearly differs from the Applicant's invention at least on this point.

Therefore, the Applicant respectfully submits that Claim 12 and dependent Claims 13-17 are allowable over the Yabe et al. reference.

Consequently, in view of the above discussion, it is respectfully submitted that the present application is in condition for formal allowance and an early and favorable reconsideration of this application is therefore requested.

Respectfully Submitted,

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